

Climatological Data for April, 1910.
DISTRICT No. 5, UPPER MISSISSIPPI VALLEY.

GEORGE M. CHAPPEL, District Editor.

TEMPERATURE.

The first half of April, like the whole of March, was dry and generally warm, but the latter half was very changeable, giving marked fluctuations of temperature, and in the northern half of the district heavy snowfall attended by blizzard conditions.

Mild temperature characterized the weather in North Dakota and the maximum temperatures on the 27th were without parallel during April in any of the preceding years of record. There were 11 stations within this district that recorded 90° or more, the highest being 96° at Amenia. The lowest temperature recorded was 9° at McKinney, on the 23d, making a range of 87° in 4 days.

The month was much warmer than usual in Minnesota; the excess in temperature being general and ranged from 2° to 8°, the least departures occurring in Polk, and the greatest in southern Itasca County. The mean temperature ranged from about 52° in the central Minnesota Valley to about 42° along the shore of western Lake Superior. Unusually warm periods occurred on the 9th and 10th and on the 27th and 28th. On the last date a maximum of 95° was recorded at Winnebago and Lynd No. 2, which is the highest temperature ever recorded in the State during the month of April. Cold periods occurred on the 16th and 17th and from the 22d to the 25th, with severe freezing temperatures, greatly damaging vegetation, which had prematurely advanced during the warm weather of March and the first half of April.

In Wisconsin, the mild pleasant weather which prevailed during the month of March continued during the first half of April, but the latter half of April was very changeable. The mean temperature for the month was 4.4° above the normal, but the month seemed cooler than March. The temperature was generally above the freezing point until the 15th, when a change to cooler occurred, and on the 17th the temperatures were from 5° to 10° below freezing. Another and colder period occurred on the 22d and 24th, when the minimum temperatures were generally 10° to 12° below freezing, and at some stations were down to 20° below freezing. Following this last cold period the temperature rose rapidly, and the last 2 days of the month were exceedingly warm, the maximum temperature being 93° on the 29th at La Crosse. The high temperature during the last 2 days generally exceeded all previous records for the time of the year, and the minimum temperatures between the 22d and 24th were the lowest ever observed so late in April at most stations.

In Iowa, the mean temperature was 3.8° above the normal notwithstanding the fact that abnormally cold weather prevailed most of the time between the 15th and the 26th. A cold spell set in on the evening of the 14th, attended by moderate showers, changing to snow on the 15th, which continued over the larger part of the section until the 18th. The minimum temperatures on the 16th, 17th, and 18th were from 3° to 12° below the freezing point, and the amounts of snowfall ranged from a trace in the southern to over 5 inches at some of the stations in the northeastern counties. The freezing temperatures materially lessened the prospects of a fruit crop, as apple, cherry, and other fruit trees were in full bloom in the northern part of the State by the 10th of the month. The damage done, however, was small as compared with the damage resulting from the freeze of the 23d-24th, when the minimum temperatures were 10° to 12° below the freezing point in the southern counties. The maximum temperature on the 23d was below the freezing point in the northeastern counties and the minimum on that date was lower than ever before recorded during the last decade of April at many stations. The ground froze hard on

the mornings of the 23d and 24th, and ice formed from one-half to 1 inch thick in tubs of standing water. Following this last cold period the temperature rose rapidly and the 28th and 29th were excessively warm, the maximum temperatures on those dates being 90° or higher over the western part of the section, and the maximum on the 28th was higher than ever before recorded during April over the western half of the State.

Although the mean temperature for that part of Missouri, within the Mississippi watershed, differed but little from the April normal, the month was unusual in both warm and cold periods. With the exception of the 5th and 6th, the mean temperature was almost continuously above the normal during the first 2 weeks. The first marked cold spell occurred on the 16th and continued over the 19th, with freezing temperatures on the 17th and 18th. Cool weather prevailed until the 23d when a decidedly cold, wet period set in which continued until the 26th. On the morning of the 24th minimum temperatures of 23° to 25° occurred, greatly damaging all vegetation. This unusually cold spell was followed by a phenomenally hot one, which began on the 27th and continued to the close of the month; the day temperatures on the 29th exceeded 90°, surpassing records of former years for the last decade of April. From the 16th to the 26th, inclusive, there was a large deficiency of temperature, but the first 15 and the last 5 days gave a marked excess, resulting in a monthly mean slightly above the normal.

In Indiana the first half of the month was unusually warm and very similar in character to the latter half of the preceding month. Cool weather set in about the middle of the month, and continued until the closing days, when a brief warm spell culminated in the highest temperatures for the month on the 29th. The cold was extraordinarily severe on the 23d and 24th, temperatures as low as 24° being general in this section of the State.

In Illinois the mean monthly temperature was 53.1°, or 1.9° above the normal. The highest monthly mean was 57.6° at Chester, and the lowest, 49.8° at Sycamore. The highest temperature reported was 92° at La Harpe on the 29th, and the lowest, 12° at Oregon, on the 24th. The unseasonably warm weather obtaining in March continued until April 15, when a sharp decline occurred, culminating in a freeze on the 23d and 24th, attended by a snowstorm, and resulting in the nearest complete destruction to fruits, gardens, and shade trees in the history of the Service.

The monthly mean temperature for the district, as shown by the records of 292 stations, was 50.5°, which is 3.8° above the normal. The highest monthly mean was 57.6° at Chester, Ill., and the lowest, 42.6° at Grafton, N. Dak. The highest temperature recorded was 97° at Webster City, Iowa, on the 29th, and the lowest, 9° at McKinney, N. Dak., on the 23d.

PRECIPITATION.

The precipitation was generally below the normal, but an excess occurred in portions of Minnesota, Wisconsin, eastern Iowa, Illinois, and Indiana. In that portion of North Dakota within this district, the precipitation was nearly normal and it was quite evenly distributed geographically. The heaviest occurred in the northeastern portion of the State, in the upper Red River Valley. A considerable portion of this precipitation resulted from heavy snows, stations in that vicinity reporting from 18 to 19.5 inches. Pembina reported both the largest amount of precipitation and the largest amount of snowfall, the former being 3.41 and the latter 19.5 inches. The month opened with fair weather, which continued until the close of the 12th, except scattered showers on the 3d and 4th. From the 13th to the 18th, inclusive, precipitation, a considerable portion of which was in the form of snow, occurred in quite generous

amounts. Fair weather generally prevailed from the 19th to the 28th, inclusive, and showers occurred on the last 2 days. The average number of days with .01 inch or more of precipitation was 5.

In Minnesota the precipitation ranged from a little more than one-half inch in Ramsey, Hennepin, Dakota, and Rice counties to more than 4.00 inches in southeastern Douglas County. There was an excess of precipitation in most of the western and northern counties, and a deficiency in the eastern and southern counties. The deficiency from Hennepin and Ramsey counties southward to the Iowa line was about 2 inches. Most of the monthly precipitation occurred from the 14th to the 18th, but there was quite general precipitation on the 4th and 22d. On the 16th and 17th there was a general and heavy fall of snow. The average monthly snowfall was 4.5 inches.

In Wisconsin the precipitation was abundant and well distributed in the central and eastern portions, but was light in the northwestern section. In the Wisconsin Valley the precipitation was about twice the normal amount. This was very favorable for the water-power companies located along that river, as at the beginning of the month the river was very low. In the northwestern section the total fall was generally less than one-half the normal amount and rain is badly needed in that portion of the State. During the night of the 22-23d a severe blizzard set in and continued throughout the 23d, the total snowfall ranging from 4 to 8 inches or more, except in the extreme northwestern portion of the section. This heavy fall of snow exceeded all previous records for the month. The storm interrupted traffic to a considerable extent.

The average precipitation for Iowa was 1.35 inch below the normal and was unevenly distributed; the eastern third of the State receiving the largest amounts while a few localities in the north-central counties received less than one-fourth of an inch. Much of the precipitation was in the form of snow or snow mixed with rain during the storms of the 15-18th and 22d-24th.

In Missouri the total precipitation, as a rule, was below the normal. The wet periods were from the 2d to the 6th, 14th to the 18th, and 23d to the 26th. On the 16th and 17th and during the last period, especially on the 24th and 25th, much snow fell. In the northern part snow remained on the ground for several hours, ranging in depth from 1 to over 4 inches.

In Indiana the early part of the month was comparatively dry and very favorable for the advancement of all outdoor work. Showers occurred from the 3d to the 6th and on the 11th and 12th, but were mostly light in character. From the 15th to the end of the month, rain or snow fell every day except on the 20th, 21st, 28th, and 29th, the amounts being sufficiently heavy to retard the progress of farm and other outdoor work, and combined with the prevailing cold weather, greatly hindered the growth of vegetation. During this period snow fell to a considerable depth. In some localities it amounted to 4 inches or more, the greatest amount reported being 7.3 inches, but it remained on the ground only a short time.

The average precipitation for Illinois was 3.47 inches, or .22 inch above the normal. The greatest monthly amount, 6.78 inches, occurred at Cairo, which was the greatest at that station for April in 39 years with 2 exceptions; the least monthly amount 1.87 inch, occurred at St. Peter. The greatest amount in any 24 consecutive hours was 2.03 inches at Cairo on the 15-16th. The average snowfall was 4.0 inches, ranging from a trace to 11.3 inches. The average number of rainy days was 13; clear days, 12; partly cloudy, 6; cloudy, 12. Bright sunshine 54 per cent, or about 4 per cent below the normal for April.

The average precipitation for the District, as shown by the records of 303 stations, was 2.31 inches, which is 0.32 inch below the normal. The greatest amount, 6.78 inches occurred at Cairo, Ill., and the least, 0.10 inch at Webster City, Iowa. The greatest amount in 24 hours, 2.73 inches, occurred at Gorin, Mo., on the 5th. The average depth of unmelted snowfall was

4.6 inches; the greatest depth was 19.5 inches at Pembina, N. Dak., and none occurred at McKinney and Pratt, N. Dak.

SUNSHINE AND CLOUDINESS.

The average number of clear days was 13; partly cloudy, 7; and cloudy, 10. The duration of sunshine was about normal.

WIND.

Northwest winds prevailed. The highest velocity reported was 54 miles per hour from the southwest on the 14th, at Cairo, Ill.

MISCELLANEOUS.

The warm, dry weather during March and the first half of April enabled farmers to finish their spring seeding and the preparation of the ground for corn planting at a much earlier date than usual. It also forced the growth of vegetation to an unusual degree: trees were in full foliage nearly to the northern part of the district by the middle of April, and all fruit trees were in full blossom as far north as central Minnesota and Wisconsin. Considerable corn and potatoes were planted during the second week of the month in all parts of Iowa and Illinois, and spring sown grain was up over the middle and southern sections before the severe freezing temperatures which spread over the district between the 15th and 18th, and which resulted so disastrously to the fruits and early garden truck. Much of the fruit that escaped the freeze and some of the later varieties which came into bloom the following week were frozen during the cold spell between the 23d-25th. Not only the blossoms on fruit trees were killed, but the foliage and new growth on all trees were frozen and had fallen off by the end of the month, leaving the trees almost as bare as in late autumn.

Mr. John West James, cooperative observer at Riley, Ill., writes:

At the end of the winter there was practically no frost in the ground; the unusually warm weather the last week in March, and the unprecedented high mean temperature for so early in the spring, brought the earliest fruit bloom on record. Some damage was done by frost on April 17 and 18; then on the night of April 23 the temperature fell to 16°, the lowest on record so late in the spring for 50 years, destroying not only the fruit bloom but also the leaves of pear, ash, maple, black walnut, and oak trees, and nearly destroyed lilac bloom. I never before saw such wholesale destruction by frost so late in the spring. Since warmer weather came on, I have seen what looks like fresh bloom on some hardy apple trees, but whether we will have a few apples, or the crop is utterly destroyed, can not be told at this time.

The Secretary of the Iowa State Horticultural Society, in his monthly report showing the condition of fruit on May 1, says:

The average for May is only 9 per cent of a full crop. This is the lowest percentage ever estimated for May 1, on the condition of the crops in this State. The bloom on trees was three weeks in advance of normal; two weeks earlier than any record we have since the society was organized.

The heavy snow over the northern half of the district afforded protection to small grain, and although grain was in many localities frozen to the ground, no material damage was done except to check its growth.

A small tornado struck the northwestern portion of the city of Des Moines at 11:15 p. m., April 3, doing considerable damage to several dwellings and small out buildings. The storm struck and unroofed the residence of E. A. Paul, No. 4106 Kingman Boulevard, then passed north of east, diagonally across the street where it unroofed the residence of Charles Barchaus, No. 4003 Kingman Boulevard. The storm track was very narrow as buildings on the adjacent lots at either side of Mr. Paul's house were not injured, and the path of destructive violence was only about 400 feet long. There was, however, some slight damage done to trees and a few small outbuildings on the north side of the main track of the storm. It was preceded by the typical roar of a tornado and was attended by terrific thunder and vivid lightning. No one was injured and the damage done was estimated to be less than \$5,000.

The Section Director at Springfield, Ill., reports:

On Friday, April 15, between 3 and 4 o'clock, p. m., a thunderstorm of destructive violence passed over Madison, Macoupin, and Montgomery

counties. The storm came from the southwest. Its path of destruction was about one-half a mile wide and its most notable characteristic was the enormous hailstones that fell at Hillsboro and vicinity. Much property was destroyed by high winds, and the damage by hail at Hillsboro was extensive.

The St. Louis, Mo., and Hillsboro, Ill., newspapers claim that many of the hailstones which fell at Hillsboro were as large as a goose egg, and substantiate the statement by the reproduction of photographs showing many of the larger stones.

The stages of all the rivers in the district were below the normal for the season of the year.

DRAINAGE AND ENGINEERING NOTES.

The party making the survey of the Des Moines River, from Keokuk to Des Moines, Iowa, in charge of Mr. A. O. Rowse, United States Army Engineer, have run a transit line and levels as a base for the complete survey, a distance of 120 miles, during the month of April. This part of the work will be completed about May 7, after which topographical and hydrographical work will be taken up.

A drainage survey of the Des Moines River will be made during the coming summer by the Drainage Investigation Service of the United States Department of Agriculture, from

Humboldt, Iowa, to the north State line. Mr. O. G. Baxter, Drainage Engineer of the Department, will be in charge of the party to make the survey and the work will begin about May 12.

Mr. George D. Dobson, engineer for the Iowa State Drainage, Waterways and Conservation Commission, is making an investigation of the Boone River, from Webster City, Iowa, to the Des Moines River, to determine the possibilities of developing water power, and also of preventing excessive floods by means of storage reservoirs. This stream has been selected by the Commission as typical of the Iowa streams, and it is hoped by the study of this river to point out to the next legislature the value of similar investigation of all the principal rivers in the State.

The Local Forecaster at Milwaukee, Wis., reports that the water-power question is attracting a great deal of attention in that State and that considerable development work is being done. A company located at Wausau is expending \$300,000 in building and maintaining storage reservoirs in the upper waters of the Wisconsin River. Power plants are also being constructed, or have recently been constructed, on the lower Wisconsin River, the Chippewa River, the Flambeau River, and others.

TABLE 1.—Climatological data for April, 1910. District No. 5, Upper Mississippi Valley.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.					Precipitation, in inches.					Sky.			Prevailing wind direction.	Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, 01 inch or more.	Number of clear days.	Number of partly cloudy days.			
<i>North Dakota.</i>																				
Amenia.	Cass.	954	12	46.6	+ 4.8	96	27	12	17	53	1.46	- 0.67	0.56	3	16	6	8	nw.	C. E. Wood.	
Bottineau.	Bottineau.	1,638	14	45.8	+ 8.7	86	28	15	23	53	1.34	+ 0.36	0.38	5	15	5	10	se.	J. A. Kemp.	
Cando.	Towner.	1,488	8	46.8	+ 7.9	85	27	13	16	65	1.02	+ 0.42	0.32	4	17	6	7	n.	E. T. Judd.	
Crosby.	Williams.	3	48.0			90	20	16	22	47	1.38		0.48	T.	5	23	1	6	nw.	H. C. Kaschau.
Devils Lake.	Ramsey.	1,483	4	44.7	+ 6.5	84	27	14	16	50	1.22	- 0.81	0.60	3.5	5	13	10	7	n.	U. S. Weather Bureau.
Donnybrook.	Ward.	1,760	10	45.5 ^a		91 ^b	20	14 ^c	16	56 ^d	0.75		0.75		1				nw.	C. J. De Vore.
Dunseith.	Rolette.	12	46.8	+ 8.7		86	26	13	23	55	0.99	+ 0.34	0.35	5	21	5	4	n.	L. H. Trowbridge.	
Edmore.	Ramsey.	1,524	4	48.1		90	27	12	16	48	1.26		0.46	3.0	5	16	11	3	n.	H. R. Aslakson.
Forman.	Sargent.	1,249	15	51.6	+ 8.5	89	27	18	18 ^e	49	1.38	- 0.97	0.71	6.7	2	16	6	8	nw.	A. Maltby.
Grafton.	Walsh.	827	12	42.6	+ 3.4	84	24	12	17	51	1.90	+ 0.42	1.00	18.0	3	10	14	6	n.	H. La Moure.
Granville.	McHenry.	1,504	3	48.0		90	26	15	16	55	1.49		0.62	5	16	7	7	nw.	W. A. Christiansen.	
Hannah.	Cavalier.	1,568	4	43.8		83	26	9	23	45	1.40		0.57	3.0	5	15	5	10	nw.	J. Moffatt.
Hansboro.	Towner.	2	43.6			77	25	12	23	48	1.54		0.65	1.2	8	18	2	10	nw.	Geo. Dale.
Hillboro.	Trail.	901	4	47.8		83	27	16	16	44	2.09		0.76	7	19	5	6	n.	M. H. Norman.	
Lakota.	Nelson.	1,519	3	43.8		82	13 ^f	13	16	49	2.29		0.66	8.0	7	15	10	5	nw.	C. R. Pettes.
Langdon.	Cavalier.	1,615	14	43.5		85	26	12	16	51	1.60		0.97	5	18	0	12	w.	J. Woolner.	
Larimore.	Grand Forks.	1,134	14	42.8	+ 2.9	82	13 ^f	14	16	53	1.31	- 0.15	0.28	3.9	6	7	16	7	n.	S. R. Britton.
Lisbon.	Ransom.	1,061	5	47.2		90	27	17	16	54	1.38		0.60	12.2	5	16	6	8	nw.	H. K. Adams.
McKinney.	Ward.	1,640	15	47.0	+ 6.6	91	20 ^g	9	23	59	1.00	+ 0.13	0.54	0.0	4	11	13	6	nw.	N. P. Swenson.
Manfred.	Wells.	1,805	8	47.6		90	27	13	23	50	1.05		0.65	1.5	4	18	5	7	nw.	P. B. Anderson.
Mayville.	Trail.	975	14	48.7	+ 5.7	81	26	11	15	40	1.91	+ 0.19	0.80	8.0	4	23	4	3	nw.	M. N. Pope.
Minot.	Ward.	1,557	11	49.2	+ 7.8	91	27	18	23	59	1.88	+ 0.49	0.89	7	22	2	6	n.	J. J. Bates.	
Oriska.	Walsh.	820	16	46.0 ^a	+ 5.5	85	26	15	16	47 ^d	1.33	- 0.33	0.60	6	9	13	8	s.	S. S. Marsh.	
Park River.	Barnes.	1,270	4	50.5 ^a		91	27	15	18	49 ^c	0.55		0.30	3	11	4	11	nw.	W. E. Williams.	
Walsh.	Pembina.	998	6	45.5		86	26	15	16	59	1.06		0.52	5	15	11	4	nw.	A. Heyward.	
Porta.	Pembina.	789	11	43.2	+ 4.8	79	28	12	16	44	3.41	+ 2.19	1.10	19.5	9	14	6	10	nw.	C. W. Shumaker.
Willow City.	Bottineau.	1,954	15	48.2 ^a	+ 8.3	88	26	12	23	55	1.25	+ 0.39	0.85	T.	3	10	7	7	nw.	M. S. Davis.
<i>Minnesota.</i>																				
Albert Lea.	Freeborn.	1,329	20	53.0	+ 7.8	94	28	21	17	49	0.70	- 1.89	0.20	7.0	4	13	12	5	nw.	Edward Carey.
Alexandria.	Douglas.	1,391	16	46.8	+ 5.8	85	27	15	16	43	3.03	+ 0.87	1.70	5.1	6	13	5	12	nw.	P. O. Unumb.
Angus.	Polk.	370	8	44.9		83	13	18	23	47	0.98		0.31	3.0	5	14	9	7	n.	John Nadvornik.
Bagley.	Clearwater.	1,084	1	45.2		81	10	16	19	51	2.23		0.91	3.5	6	14	10	6	nw.	Jens Nelson.
Baudette.	Beltrami.	1,090	17	45.0		79	13	11	22	46	1.78		0.56	5.0	5	16	2.0	8	ne.	Franz W. Schmidt.
Beardsley.	Bigstone.	1,282	17	50.2	+ 5.7	86	27	20	16	50	1.64	- 0.40	0.40	3.0	8	17	4	9	nw.	Roy A. Smith.
Beaupre.	Mahnomen.	1,200	8	46.4 ^a		84 ^b	10 ^c	16 ^d	18	46 ^e	1.86		0.70	4.0	7	16	5	9	nw.	Dr. L. A. Parkinson.
Bird Island.	Renville.	1,039	20	50.0	+ 5.4	89	28	20	18	48	1.00	- 1.22	0.57	5.0	4	15	6	9	nw.	F. L. Puffer.
Caledonia.	Houston.	1,179	17	49.7	+ 4.2	87	29	20	24	40	2.26	- 0.95	0.50	11.0	8	14	4	12	ne.	W. D. Belden.
Campbell.	Wilkin.	984	4	45.6		89	27	16	17	52	2.07		0.61	2.0	6	19	1	10	nw.	J. T. Neisens.
Cass Lake.	Cass.	1,300	4								2.15		0.60	5.0	5	6	6	7	nw.	C. W. Burns.
Collegeville.	Stearns.	1,282	17	50.2	+ 5.7	86	27	20	16	50	1.64	- 0.40	0.40	3.0	8	17	4	9	nw.	Fridolin Tembreul.
Crookston.	Polk.	863	20	44.1	+ 2.4	81	10	16	16	43	2.18	+ 0.31	0.85	T.	7	16	5	9	s.	A. G. Andersen.
Detroit.	Becker.	1,364	14	43.8	+ 4.6	86	27	15	16	49	2.23	+ 0.55	0.70	2.0	6	19	2	9	nw.	George W. Peoples.
Fairmont (near).	Martin.	1,240	23	50.3	+ 5.3	86	28	21	17	35	0.65	+ 2.21	0.30	5.0	4	14	11	5	nw.	W. F. Wherland.
Faribault.	Rice.	1,003	13	48.8	+ 4.3	88	28	18	23	42	0.58	- 1.11	0.19	4.9	7	14	9	7	nw.	Dr. A. R. T. Wylie.
Farmington.	Dakota.	902	22	51.0	+ 6.2	89	28	19	23	49	0.55	- 0.20	0.20	3.0	5	12	5	13	s.	D. G. Akin.
Fergus Falls.	Ottertail.	1,210	18	48.6	+ 5.7	86	27	16	16	42	2.14	+ 0.08	1.24	7.3	6	17	8	7	nw.	Chas. E. Kissenger.
Fort Ripley.	Crow Wing.	1,136	4	47.4		86	27	20	16	47	1.64	- 0.91	1.18	3.5	5	16	4	10	n.	J. J. Tucker.
Fosston.	Polk.	1,289	1	44.4		81	10 ^f	11	16	52	1.55		0.57	3.0	7	16	6	8	n.	O. N. Hem.
Glencoe.	McLeod.	1,000	14	51.5	+ 6.9	87	28	21	17	48	1.36	- 0.70	0.65	5.5	4	16	10	4	nw.	C. G. Selvig.
Grand Meadow.	Mower.	1,338	23	50.6	+ 6.4	89	28 ^f	17	23	41	0.43	- 2.00	0.35	4.5	7	14	10	6	n.	C. F. Greening.
Hallock.	Kittson.	815	11	44.4	+ 4.4	84	13	15	16	47	1.88	+ 0.86	0.75	6.0	6	20	2	8	n.	D. A. Robertson.
Halstad.	Norman.	870	4	44.7		83	10 ^f	16	18	54	0.55	- 0.20	0.38	2.2	1	7	2	7	nw.	Aaron G. Holstrom.
Hinckley.	Pine.	1,050	5	48.8		82	9	18	23	43	0.52	- 0.41	0.41	3.0	2	5	18	7	s.	W. R. Newman.
International Falls.	Koociching.	1,112	2	45.6		77	13	16	23	47	2.38		1.13	4.0	7	17	9	4	ne.	Rees Roe.
Kellifer.	Beltrami.	3																		A. Gilmour.
Lake Crystal.	Blue Earth.	3	51.0			89	28	22	17	38	0.32		0.24	2	15	7	8	nw.	W. P. Cobb.	
Leech Lake Dam.	Cass.	1,301	22	45.4	+ 5.9	79	10	19	23	46	2.22	+ 0.76	0.55	2.8	7	17	8	se.	Hans Olson.	
Little Falls.	Morrison.	1,117	4																Maurice Coleman.	
Little Fork.	Koociching.					78	31												O. C. Olson.	
Long Prairie.	Todd.	1,299	18																R. M. Sheets.	
Lynd (2).	Lyon.	1,175	18	50.2	+ 5.7	85	28	19	17	46	1.66	- 1.25	1.01	3.5	9	18	3	9	nw.	J. W. Rouse.
Mankato.	Blue Earth.	747	11																Sadie H. Blake.	
Mapleplain.	Mapleplain.																		G. W. Richards.	
Milaca.	Hennepin.	1,072	13	47.4 ^a		84 ^b	27	21 ^c	16 ^d	43 ^e										C. H. Foss.
Milan.	Chippewa.	955	16	49.4	+ 4.4	89	27	18	16	44	2.30	+ 0.25	0.76	4.0	7	18	7	7	nw.	O. K. Ojordien.
Minneapolis.	Hennepin.	918	19	50.6	+ 4.8	85	27	19	23	43	0.64	+ 1.80	0.31	4.9	7	14	6	10	n.	U. S. Weather Bureau.
Montevideo.	Chippewa.	900	20	50.6	+ 5.4	92	28	18	16	46	2.75	+ 0.25	1.30	6.0	5	14	12	4	nw.	Lloyd G. Moyer.
Moorehead.	Clay.	935	29	46.5	+ 5.1	92</td														

TABLE 1.—Climatological data for April, 1910. District No. 5—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.					Precipitation, in inches.					Observers.					
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmeted.	Number of rainy days.	Sky.			
Minnesota—Cont'd.																			
Taylors Falls.	Chisago.	759	3	51.7		82	27	20	23	43	0.71		0.29	5.7	4	s.			
Warroad.	Roseau.	1,069	1	43.5		77	13	15	22	43	1.51		0.40	6	19	n.			
West Concord.	Dodge.	1,232	1	50.2		87	28	18	23	41	1.60		0.50	11.0	6	11	H. H. Orcutt.		
Willow River.	Pine.	1,046	12													J. A. Brandt.			
Windom.	Cottonwood.	1,336	4	51.4		94	28	20	17	46	0.77		0.30	3.0	4	9	Taber C. Richmond.		
Winnebago.	Faribault.	1,100	11	52.4 ^a	+ 7.4	95 ^a	28	22	17	43 ^a	0.69	- 1.40	0.25	6.0	5	7	H. H. Haight.		
Winnibigoshish.	Itasca.	1,300	22	47.4	+ 8.3	79	10	18	23	41	2.10	+ 0.30	0.88	4.5	7	10	John Duncan.		
Winona.	Winona.	700	15	53.5	+ 7.1	91	28	21	17	45	1.20	- 1.52	0.28	7.0	9	9	Perry C. Myers.		
Worthington.	Nobles.	879	15	48.2	+ 3.3	85	28	17	24	46	0.88	- 1.44	0.65	4.0	4	6	W. I. Carpenter.		
Zumbrota.	Goodhue.	917	15	50.2 ^b	+ 4.7	88 ^b	28	22 ^b	17	44 ^b	0.40 ^b		0.30 ^b	3.0 ^b	2 ^b	14 ^b	9 ^b	5 ^b	W. C. Rowell.
South Dakota.																			
Milbank.	Grant.	1,148	18	47.4	+ 3.5	89	27	16	19	48	2.12	0.00	0.96	3.2	6	19	I. T. Partridge.		
Wisconsin.																			
Antigo.	Langlade.	1,489	16	47.0	+ 3.9	73	15	23	12	39					14	5	Elton C. Larzelere.		
Barron.	Barron.	1,115	18	46.8	+ 4.3	80	29	18	23	44	0.90	- 1.26	0.60	9.0	3	16	Wm. A. Kent.		
Beloit.	Rock.	750	23			81	29	19	24		3.64	+ 0.93	0.50	4.0	11	23	6	Smith Observatory.	
Brohead.	Green.	812	12	51.0	+ 3.7	86	29	16	24	45	4.07	+ 1.34	0.80	10.5	13	15	Hecktor D. Kirkpatrick.		
Burnett.	Dodge.	880	6	48.2		79	29	19	24	37	3.48		0.66	12.0	13	12	Geo. W. Smith.		
Delavan.	Walworth.	920	17	49.7	+ 3.4	84	29	15	24	30	3.24	+ 0.58	0.67	6.0	15	11	5	Elwood S. Austin.	
Dodgeville.	Iowa.	1,116	11														Geo. W. Butler.		
Downing.	Dunn.	983	8	47.9 ^a		82 ^a	28 ^a	18	23	49 ^a	0.80		0.40	8.0	3	7	Eugene F. Stoddard.		
Eau Claire.	Eau Claire.	800	19	51.5	+ 5.7	87	29	20	23 ^a	43	1.29	- 1.18	0.40	8.4	7	13	Robert D. Whitford.		
Ellsworth.	Pierce.	1,068	2														Henry G. Wood.		
Glidden.	Ashland.	1,519	18														George Sell.		
Grand Rapids.	Wood.	1,021	11	47.9	+ 3.4	82	29	20	23 ^a	42	4.14	+ 1.89	0.65	3.8	12	11	7	Willie B. Raymond.	
Grantsburg.	Burnett.	1,095	19	48.3	+ 5.6	83	10	15	23	49	0.75	- 1.81	0.33	9.0	3	10	Theodore Olsen.		
Hancock.	Waushara.	1,091	18	49.8	+ 5.0	84	29	20	23	43	4.67	+ 2.39	1.30	4.0	11	11	7	Frederick B. Hamilton.	
Hatfield.	Jackson.	973	15	50.9	+ 3.3	87	29	19	23	43	3.85	+ 1.35	0.90	8.0	11	14	5	Walter S. Woods.	
Hayward.	Sawyer.	1,197	19	47.6	+ 5.5	77	10	16	23	42	1.10	- 0.77	0.60	6.5	3	8	William E. Swain.		
Hillsboro.	Vernon.	1,000	19	48.6	+ 3.8	86	29	17	23	45	4.39	+ 1.60	0.97	8.0	9	13	Emil V. Wernick.		
Koepenick.	Langlade.	1,683	20	44.4	+ 3.1	70	14 ^a	16	12	43	4.23	+ 1.61	1.05	15.0	9	9	Edward S. Koepenick.		
La Crosse.	La Crosse.	714	38	51.0	+ 3.7	93	29	20	23	42	2.23	- 0.06	0.63	12.4	11	9	U. S. Weather Bureau.		
Lake Mills.	Jefferson.	897	19	48.2	+ 2.2	82	29	15	24	42	3.96	+ 1.35	1.10	12.6	14	9	S. Newton Dexter Smith.		
Lancaster.	Grant.	1,070	20	51.3	+ 4.5	86	29	19	23	37	4.12	+ 1.38	1.50	6.5	10	5	Edward Pollock.		
Long Lake.	Oneida.	1,592	2	44.5		74	15 ^a	11	12	49	2.02		0.06	5.0	11	14	Louie Frank.		
Madison.	Dane.	974	32	49.0	+ 4.5	83	29	19	23	35	4.56	+ 2.18	1.18	8.4	15	10	U. S. Weather Bureau.		
Mather.	Juneau.	962	6	48.2		86	29	19	24	43	4.01		0.85	11.0	10	9	Frank Evans.		
Mauston.	do.	882	14	51.1	+ 5.0	87	29	20	23	46	4.60	+ 2.71	1.35	4.0	10	7	Eugene L. Hitchcock.		
Meadow Valley.	do.	974	19	49.8	+ 4.6	89	29	20	23	46	3.68	+ 1.34	1.40	7.0	9	Charles J. Johnson.			
Medford.	Taylor.	1,420	19	47.6	+ 5.2	76	27	18	22	41	4.45	+ 2.24	2.0	7	20	2	William Zeit.		
Merrill.	Lincoln.	1,267	4	46.6		78	28	20	23	43	3.90		1.12	8.0	9	17	Frank M. McElroy.		
Minocqua.	Vilas.	1,604	6	45.8		78	29	18	23	45	1.35		0.60	2.0	5	14	6	Benjamin W. Applebee.	
Mondovi.	Buffalo.	738	2	51.2		85	29	19	23	45	1.10		0.30	6.5	9	14	Dr. Charles Hebard.		
Mount Horeb.	Dane.	1,226	6	49.6		83	29	16	24	42	5.89		1.25	7.5	15	14	W. M. Lewis.		
Muscoad.	Grant.	666	1	50.9		89	29	22	24	40	4.92		1.64	3.9	11	6	Henry Eckstein.		
Neillsville.	Clark.	996	21	51.3	+ 6.0	88	8	20	23	49	4.10	+ 1.63	1.88	10.0	8	14	William Headlett.		
New Richmond.	St. Croix.	990	5	50.8		88	9	17	23	53	1.41		0.80	10.5	4	15	Frans A. R. Van Meter.		
Oscella.	Polk.	806	19	49.7	+ 6.1	86	27	19	23	52	0.60	- 1.56	0.33	5.5	4	18	Charles W. Staples.		
Portage.	Columbia.	809	14	50.8	+ 4.0	85	29	19	23	39	5.01	+ 2.46	1.70	7.0	11	14	James Clear.		
Prairie du Chien.	Crawford.	690	23	51.3	+ 2.6	92	29	21	24	43	3.34	+ 0.99	1.18	3.5	10	11	Jas. A. Gillis.		
Prentice.	Price.	1,551	12	44.3	+ 2.4	70	9 ^a	12	23	42	1.87	0.00	0.54	2.5	7	12	Joseph G. Lash.		
Rhineland.	Oneida.	1,550	4	46.8		74	29	20	23	40	2.82		1.00	4.5	10	10	John Lind.		
Sauk City.	Sauk.	758	2														Killen Derleth.		
Shullsburg.	Lafayette.	1,019	4	49.3		83	29	15	24	40	3.16		0.93	10.5	11	12	Harrison B. Chamberlin.		
Solon Springs.	Douglas.	1,083	4	44.8		76	41	17	23	47	1.10		0.50	5.0	3	16	John M. Sayles.		
Spooner.	Wasburn.	1,104	15	45.7	+ 2.9	79	10	17	23	45	0.82	- 1.73	0.50	6.0	4	20	Horace A. Bressee.		
Stanley.	Chippewa.	1,082	6	50.6		82	29	18	23	39	1.53		0.35	9.0	7	16	W. Humphrey Scott.		
Stevens Point.	Portage.	1,113	17	48.7	+ 3.7	79	29	21	23	41	4.82	+ 2.49	2.00	5.0	9	11	Garry E. Culver.		
Valley Junction.	Monroe.	930	18	50.2	+ 5.2	87	29	21	23	42	5.31	+ 2.67	1.63	5.0	12	8	Frederick Muermann.		
Viroqua.	Vernon.	1,412	19	51.7	+ 6.1	87	29	18	23	39	2.90	+ 0.21	1.10	5.0	11	12	Henry E. Rogers.		
Vudesare.	Vilas.	1,600	2	44.7		74	14	19	23	45	2.36		0.90	6.0	5	7	Louis L. Thomas.		
Watertown.	Jefferson.	824	19	49.8	+ 4.6	82	29	18	24	30	3.97	+ 1.39	1.20	15.7	15	11	Carroll College.		
Waukesha.	Waukesha.	864	14	49.4	+ 3.5	83	29	19	24	38	3.01	+ 1.56	0.95	9.0	11	6	E. Carroll.		
Wausau.	Marathon.	1,212	17	50.3	+ 7.4	73	30	24	23	37	3.88	+ 1.32	0.95	3.0	11	15	George H. Halder.		
Weyerhaeuser.	Rusk.	1,297	3	47.3		80	29	18	23	47	1.14		0.65	10.0	7	9	Miss Etta Stiles.		
Whitehall.	Trempealeau.	675	18	51.6	+ 5.0	87	29	19	23	47	1.19	- 1.18	0.80	11.0	3	19	Henry A. Towner.		
Albia ^f .	Monroe.	959	12	50.8	+ 1.2	89	29	21	24	37	2.02	- 0.81	0.90	2.0	11	14	J. I. Chenoweth.		
Algona ^f .	Kossuth.	1,213	36	52.2	+ 6.0	95	28	19	23	45	0.29	- 2.19	0.09	5.0	4	15	Dr. F. T. Seeley.		
Alta.	Buena Vista.	1,513	19	51.2	+ 4.5	95	28	17	24	47	1.05	- 1.98	0.35	4.5	6	14	David E. Hadden.		
Amana.	Iowa.	721	34	52.3	+ 3.7	88	29	23	24	36	2.62	- 0.29	1.15	3.4	13	7	C. Schadt.		
Ames.	Story.	926	34	53.6	+ 4.5	95	29	20	17	50	0.50	- 2.17	0.20	1.0	4	11	Iowa State College.		
Baxter ^f .	Jasper.	998	10	52.8	+ 4.0	92	29	19	23	39	2.25	- 0.62	1.49	2.5	13	9	W. R. Vandike.		
Belleplaine.	Benton.	828	20	52.2	+ 3.3	90	29	22	24	43	1.69	- 1.62	0.60	8.0	8	15	S. P. Van Dike.		
Belmond.	Wright.			51.8		93	28 ^a	21	17	44	1.04		0.61	3.0	8	18	Geo. P. Hardwick.		
Bloomfield ^f .	Davis.	3	53.3 ^b			91 ^b	29	20 ^b	23	41 ^b	2.60	</							

TABLE 1—Climatological data for April, 1910. District No. 5—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.					Precipitation, in inches.					Sky.	Prevailing wind direction.	Observers.				
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unsealed.	Number of rainy days, 0.1 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Iowa—Cont'd.																				
Fairfield.	Jefferson.	26	52.2 ^a	+ 2.4	86	29	19 ^a	23	35 ^a	3.18	- 0.30	1.07	2.1	16	14	7	9	nw.	R. Monroe McKenzie.	
Fayette.	Fayette.	1,003	50.7	+ 4.2	93	29	20	17 ^a	43	3.03	+ 0.01	8.3	10	15	8	15	7	nw.	R. Z. Latimer.	
Forest City ^b .	Winneshiek.	1,226	51.5	+ 5.0	94	28	19	17	50	0.15	- 2.22	0.15	1.0	1	15	8	7	w.	J. A. Peters.	
Fort Dodge.	Webster.	1,120	52.0	+ 4.6	95	28	21	24	49	0.35	- 2.82	0.10	2.0	4	17	0	13	n.	J. F. Monk.	
Fort Madison.	Lee.	516	61							3.19	+ 0.01	0.98	6.0	7	7	5	18	sw.	Miss A. McCready.	
Gilman.	Marshall.	1,052	11																J. L. Wylie.	
Grand Meadow.	Clayton.	1,180	19	51.3	+ 4.5	89	29	20	17 ^a	37	2.91	- 0.06	1.00	8.2	11	12	8	10	nw.	F. L. Williams.
Greene.	Butler.	12	53.1	+ 0.9	95	29	22	17	44	0.84	- 1.39	0.37	3.5	5	5	13	12	s.	J. L. Cole.	
Grinnell.	Poweshiek.	1,023	56.0	+ 5.7	92	29	28	17	36	2.75	- 0.63	0.90	1.2	9	13	10	7	w.	D. W. Brainard.	
Grundy Center ^b .	Grundy.	976	19	52.3	+ 5.4	95	29	20	17	50	1.85		1.25	1.5	5	13	6	11	nw.	J. B. Calderwood.
Guthrie Center ^b .	Guthrie.	1,077	15	53.7	+ 4.4	93	28	22	17	49	0.81	- 1.93	0.30	1.5	6	15	10	5	nw.	D. G. Beardsley.
Hampton.	Franklin.	1,155	20	52.6	+ 5.3	93	28 ^a	20	17	41	0.93	- 2.35	0.38	3.2	5	12	7	11	nw.	E. C. Grenelle.
Humboldt.	Humboldt.	1,095	53.4	+ 5.1	90	28	22	17	48	0.38	- 2.23	0.12	2.0	5	17	7	6	nw.	Henry S. Wells.	
Independence ^b .	Buchanan.	921	46	51.9	+ 2.5	88	29	20	17	41	1.47	- 0.91	0.69	3.0	5	16	2	12	nw.	George Donohoe.
Indianola.	Warren.	969	19	54.1 ^a	+ 3.4	91 ^a	29	23	17	37 ^a	0.58	- 2.84	0.28	0.6	8	3	12	15	nw.	John L. Tilton.
Iowa City.	Johnson.	633	50	50.0	+ 1.5	88	29	22	17	39	2.56	- 0.58	1.16	1.6	2	12	12	12	se.	A. G. Smith.
Iowa Falls.	Hardin.	1,170	17	50.0	+ 3.3	83	29	19	17	48	1.72	- 1.16	0.62	2.0	7	15	3	12	nw.	J. B. Parmelee.
Jefferson ^b .	Greene.	11	53.8		85	28 ^a	26	23	48	0.37	- 2.23	0.25	1.2	4	15	6	9	s.	G. W. Jackson.	
Keokuk.	Lee.	547	39	54.4	+ 2.4	90	29	23	24	34	2.91	- 0.43	1.25	T.	12	10	10	10	nw.	U. S. Weather Bureau.
Kenoshaqua.	Van Buren.	644	18	51.4	- 0.2	89	29	24	24	42	3.25	- 0.44	1.83	7.8	10	6	11	13	sw.	J. H. Landes.
Knoxville ^b .	Marion.	920	15	54.7	+ 3.5	90	29	24	17	39	0.85	- 2.40	0.24	1.8	9	12	6	12	sw.	Casey & Belville.
Lacona.	Warren.	11																	J. B. Alter.	
Le Claire.	Scott.	576	10																Miss M. T. Disney.	
Marshalltown.	Marshall.	947	18	50.8	+ 2.0	94	29	20	17	43	0.31	- 2.34	0.14	1.4	5	16	5	9	nw.	Ralph B. Reasoner.
Mason City ^b .	Cerro Gordo.	1,132	13	51.0	+ 3.3	91	28	20	17	43	0.31	- 2.34	0.14	1.4	12	12	7	11	sw.	J. S. Mills.
Mount Pleasant ^b .	Henry.	729	29	53.0	+ 1.0	88	29	23	24	31	0.03	- 0.18	1.42	5.6	14	12	7	11	nw.	J. W. Edwards.
Muscatine.	Muscatine.	50																	William Molis.	
New Hampton ^b .	Chickasaw.	1,169	13	51.4	+ 4.5	90	29	19	17	40	1.04	- 0.31	0.51	5.0	7	16	5	9	s.	A. F. Kemman.
Newton ^b .	Jasper.	944	22	54.6	+ 6.2	92	29	23	17	38	1.12	- 2.21	0.45	0.2	6	13	10	7	s.	J. P. Beatty.
Northwood ^b .	Worth.	1,222	14	50.9 ^a	+ 4.4	90 ^b	28	21 ^b	17	39 ^a	0.98	- 1.18	0.50	8.5	7	15	8	7	nw.	Chas. H. Dwellie.
Olin ^b .	Jones.	760	12																C. M. Miles.	
Osage.	Mitchell.	1,184	23	54.4	+ 9.0	91	28	20	17	40	0.35	- 2.10	0.25	4.5	2	14	8	8	nw.	A. D. Bundy.
Oskaloosa ^b .	Mahaska.	843	34	53.2 ^a	+ 3.2	89	29	23	24	39	2.49	- 0.24	0.90	4.5	13	15	1	14	nw.	Joseph Boyd.
Ottumwa.	Wapello.	649	15	55.0	+ 3.0	92	29	24	24	42	2.52	- 0.63	1.16	1.2	12	7	8	15	s.	W. J. Mesmer.
Pella.	Marion.	877	8	53.3		93	29	24	24	44	1.27	- 1.25	0.80	2.8	9	18	4	8	nw.	John H. Ver Steeg.
Perry ^b .	Dallas.	975	9	53.8		93	28 ^a	21	17	43	0.61	- 2.32	0.20	2.0	5	11	13	6	nw.	J. A. Harvey.
Plover.	Pocahontas.	1,426	14	51.0	+ 5.0	96	28	20	17	51	0.22	- 1.88	0.10	2.0	4	20	8	2	nw.	J. S. Smith.
Pocahontas ^b .	do.	1,248	6	51.6		94	28	22	17	44	0.23		0.11	1.6	3	15	8	7	s.	F. E. Hronek.
Ridgeways.	Winneshiek.	1,215	12	52.2	+ 4.6	92	29	20	17 ^a	41	3.52	+ 1.18	0.71	11.0	11	15	8	7	s.	Arthur Betts.
Rockwell City ^b .	Calhoun.	14	50.0	+ 3.0	90	28	21	17	54	1.02	- 1.74	0.50	2.0	6	6	19	2	9	nw.	C. M. Randall.
Sac City.	Sac.	1,278	34	52.2 ^a	+ 4.5	95 ^a	28	21 ^a	17	44 ^a	0.52	- 2.54	0.20	2.0	4	15	8	7	nw.	E. N. Baily.
St. Charles ^b .	Madison.	1,070	9	55.0		92	29	22	17	40	0.60	- 2.92	0.20	1.6	7	15	8	7	nw.	R. D. Minard.
Sigourney.	Keokuk.	877	14	53.4	+ 2.2	88	29	22	24	38	3.30	+ 0.13	1.00	0.5	12	3	21	6	nw.	J. T. Parker.
Stockport.	Van Buren.	8	51.8		90	29	22	24	34	3.05	- 0.07	1.19	0.80	8.0	11	11	5	14	s.	C. L. Beswick.
Storm Lake.	Buena Vista.	1,440	21	50.6 ^a	+ 5.2	90 ^a	28	20 ^a	24	45 ^a	0.55	- 1.79	0.34	5.0	5	16	9	5	nw.	S. B. Fracker.
Stuart.	Guthrie.	1,216	11	53.8	+ 6.4	91	28	26	23	45	1.41	- 1.75	0.50	0.5	5	13	8	9	nw.	J. P. Fox.
Tipton ^b .	Cedar.	807	11	54.0	+ 5.1	87	29	25	23	34	2.51	- 1.73	0.28	1.0	16	4	10	s.	F. K. Gregg.	
Toledo.	Tama.	856	16	53.0	+ 3.4	89	29	21	17	39	2.12	- 0.68	0.50	10	19	5	6	nw.	I. F. Giger.	
Wapello.	Louisa.	588	12	53.2	+ 1.8	89	29	25	24	34	2.07	- 0.52	0.78	1.5	9	13	7	10	nw.	G. W. Schofield.
Washington.	Washington.	768	28	52.5	+ 2.0	89	29	22	24	36	3.11	+ 0.45	0.93	3.0	13	12	6	12	nw.	Wm. A. Cook.
Waterloo.	Black Hawk.	862	27	51.8	+ 4.8	92	29	24	17	41	2.17	- 0.16	0.73	0.50	11	16	3	11	nw.	M. L. Newton.
Waukee.	Dallas.	1,039	7	52.2		92	28	20	17	43	1.31	- 1.89	0.91	0.6	6	12	13	5	nw.	Samuel F. Folt.
Waverly ^b .	Bremner.	948	14	52.2	+ 5.2	92	29	23	17 ^a	33	2.00	- 0.69	0.92	2.8	10	10	12	8	nw.	H. S. Hoover.
Webster City ^b .	Hamilton.	1,197	17	53.3	+ 7.0	93	28	24	16 ^a	36	3.35	- 2.37	0.18	3.0	4	11	10	9	nw.	C. D. Carpenter.
West Bend ^b .	Palo Alto.	1,036	13	52.4	+ 5.0	93	29	17	17	40	1.32	- 0.82	1.00	2.0	15	10	5	sw.	Joseph Dorweiler.	
Whittens ^b .	Hardin.	1,129	19	53.8	+ 3.4	93	28	23	17	42	0.79	- 2.93	0.21	1.5	6	7	11	12	n.	F. P. Butler.
Wintersteet ^b .	Madison.	6	52.6		94	29	18	17	50	0.47		0.28	0.5	7	3	21	6	nw.	Robert S. Cooper.	
Zearing.	Story.																		Orley Reese.	
Indiana—	Scotland.	700	24																J. W. Pulliam.	
Collegeville.	Marion.	534	18	53.3	- 0.3	92	29	24	24	35	3.72	- 0.57	2.73	1.0	10	11	4	15	nw.	U. S. Weather Bureau.
Louisiana.	Pike.	500	32	53.4	0.0	93	29	23	24	44	1.82	- 0.19	0.41	1.4	9	10	11	nw.	J. T. Farrell.	
Mexico.	Audrain.	787	32	53.0	- 1.4	92	29	25	24 ^a	43	3.29	- 0.20	0.75	4.5	17	0	13	9	nw.	J. F. Llewellyn.
Steffenville.	Lewis.	576	17	54.0	+ 1.5	90	29	22	25	36	5.04	+ 1.56	1.20	1.7	13	10	11	9	nw.	Lewis Spriggs.
Sublett.	Aadir.	1,000	30	52.8	+ 1.2	89	29	24	24	39	2.55	- 0.98	2.00	1.0	1	9	6	15	s.	Frank Hall.

MONTHLY WEATHER REVIEW.

APRIL, 1910

TABLE 1.—*Climatological data for April, 1910. District No. 5—Continued.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.					Precipitation, in inches.					Sky.	Prevailing wind direction.	Observers.				
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unnamed.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
<i>Illinois—Cont'd.</i>																				
Henry.	Marshall.	500	22	53.4	+ 3.3	89	29	22	24	41	3.28	+ 0.11	0.64	4.5	13	12	5	13	sw.	Dr. F. A. Powell.
Hillsboro.	Montgomery.	675	16	52.8	- 0.4	85	29	23	24	41	5.19	+ 1.72	1.85	2.0	12	14	2	14	s.	Ira L. Woodward.
Joliet.	Will.	541	19	51.2	+ 2.5	87	29	84	23	40	3.81	+ 1.22	0.94	4.4	14	13	1	16	nw.	F. M. Muhlig.
Kishwaukee.	Winnebago.	730	22	51.1	+ 3.4	86	29	16	24	37	3.84	+ 0.65	0.72	9.0	16	12	7	11	sw.	Geo. Stevens.
La Grange.	Cook.	657	18	52.8	+ 5.1	81 ^a	11	29 ^a	27	44	3.47	+ 0.72	0.78	5.5	15	9	7	14	sw.	Prof. F. E. Sanford.
La Harpe.	Hancock.	698	31	52.4	+ 1.1	92	29	20	24	37	2.37	- 1.17	0.56	1.	10	15	6	9	sw.	Jno. S. Campbell.
Lanark.	Carroll.	883	21	50.4	+ 2.8	85	29	18	24	43	3.01	- 0.16	0.78	4.0	13	16	3	11	s.	M. N. Wertz.
La Salle.	Le Salle.	536	33	51.8	+ 2.0	88	29	21	24	38	3.78	+ 0.68	0.57	4.6	16	10	7	13	sw.	U. S. Weather Bureau.
Lincoln.	Logan.	482	22	51.4 ^a	- 0.7 ^a	85 ^a	29	18 ^a	24	38 ^a	3.56	+ 0.68	0.68	4.7	13	10	9	11	sw.	Prof. C. S. Oglevee.
Martinton.	Iroquois.	633	23	51.6	+ 2.2	88	29	22	24	47	2.27	- 0.04	0.38	2.0	13	14	4	12	s.	Jos. H. Peltier.
Mascoutah.	St. Clair.	426	20	56.8	+ 2.8	91	24 ^a	26	24	42	4.62	+ 0.44	1.45	2.0	10	12	9	9	se.	Geo. Henrich.
Minonk.	Woodford.	745	17	53.0	+ 2.8	89	29	16	24	45	3.63	+ 0.82	0.92	9.0	12	11	10	9	sw.	O. M. Davison.
Monmouth.	Warren.	754	18	54.0	+ 2.9	91	29	20	24	39	2.91	- 0.16	0.99	4.5	16	12	9	9	nw.	Hugh R. Moffet.
Morrison.	Whiteside.	655	16	51.7	+ 2.5	86	29	20	24	42	4.09	+ 0.77	0.82	11.3	14	12	7	11	s.	S. A. Maxwell.
Morrisville.	Christian.	638	11	53.0 ^a	+ 1.4	85 ^a	29	20 ^a	24	43 ^a	3.43	+ 0.15	0.97	3.3	11	10	10	10	nw.	J. D. Louis.
Mount Vernon.	Jefferson.	511	16	55.2	+ 0.9	86	29	27	24	45	3.43	- 0.01	0.50	4.0	15	10	4	16	n.	Theo. P. Stelle.
Oregon.	Ogle.	702	1	51.9	...	89	29	12	24	40	3.74	...	0.65	6.5	14	12	5	13	sw.	Samuel Ray.
Ottawa.	La Salle.	500	24	53.0	+ 2.4	89	29	19	24	48	3.28	+ 0.37	0.53	6.0	11	9	7	14	sw.	Miss M. M. Harris.
Pana.	Christian.	692	24	53.8	+ 0.5	85	29	22	24	35	3.49	- 0.23	0.85	2.0	13	19	5	6	nw.	C. W. Sibley.
Peoria.	Peoria.	609	33	52.0	+ 1.1	89	29	22	24	36	3.56	+ 0.28	0.78	1.7	11	10	9	9	s.	U. S. Weather Bureau.
Pontiac.	Livingston.	546	8	53.0	...	88	29	21	24	42	4.07	...	0.76	6.0	15	12	7	11	sw.	Geo. Butterworth.
Riley.	McHenry.	956	51	50.6	+ 4.8	84	29	16	24	38	3.32	+ 0.64	0.73	4.5	15	8	10	12	nw.	John West James.
Rockford.	Winnebago.	763	18	50.2	+ 2.1	87	29	17	24	39	3.50	+ 0.38	0.54	3.0	18	14	2	14	s.	Hosmer C. Porter.
Rushville.	Schuyler.	670	19	54.4	+ 1.5	90	29	22	24	34	2.82	- 1.20	0.55	3.0	11	7	10	13	s.	H. F. Dyson.
St. Charles.	Kane.	700	15	50.9	+ 3.2	87	29	20	24	43	3.81	+ 0.78	0.52	6.0	16	6	6	14	sw.	Dr. Wm. H. Bishop.
St. Peter.	Fayette.	500	8	55.6	...	88	29	24	24	38	1.87	...	0.38	1.5	11	10	9	11	nw.	M. L. Lansford.
Springfield.	Sangamon.	644	33	53.7	+ 1.7	89	29	22	24	33	2.81	- 0.50	0.60	3.6	15	8	7	15	s.	U. S. Weather Bureau.
Streator.	Le Salle.	626	17	52.4	+ 2.6	90	29	20	24	45	4.20	+ 1.31	0.84	5.8	13	16	4	10	sw.	Edw. F. Sweetser.
Sullivan.	Moultrie.	530	10	53.0	+ 1.8	86	29	24	24	42	3.18	- 0.91	1.45	4.5	10	12	8	8	nw.	C. A. Corbin.
Sycamore.	De Kalb.	855	30	49.8	+ 2.7	89	29	17	24	42	3.78	+ 0.45	0.73	2.0	13	14	3	13	se.	Miss E. J. Davis.
Tilden.	Randolph.	500	24	55.8	+ 0.1	88	29	25	24	38	3.23	- 0.71	0.65	5.0	15	12	2	16	nw.	Jas. A. Caldwell.
Tiskilwa.	Bureau.	798	18	52.7	+ 3.4	89	29	16	24	38	2.06	- 0.49	0.51	6.0	14	14	5	11	sw.	F. L. Smucker.
Walnut.	do.	717	19	52.2	+ 1.1	90	29	18 ^a	24	39 ^a	2.42	- 0.42	0.40	2.1	13	14	7	9	se.	O. C. Nussle.
White Hall.	Greene.	573	2	53.4	...	90	29	24	24	40	3.34	...	0.67	4.5	15	11	5	14	w.	Dr. R. A. Pritchett.
Windsor.	Shelby.	681	11	53.2	+ 1.4	85	29	24	24	43	2.83	- 0.37	0.84	2.7	12	8	5	17	s.	Herbert Rose.
Winnebago.	Winnebago.	900	23	51.4	+ 3.6	87	29	15	24	42	4.56	+ 1.22	0.87	10.0	14	15	4	11	s.	Frank Osborn.
Yorkville.	Kendall.	584	23	51.0	+ 3.6	85	29	18	24	45	4.16	+ 1.28	1.00	5.5	17	15	3	12	w.	Herman A. Grimwood.
Zion.	Carroll.	938	16	51.5	+ 3.2	87	29	19	24	39	2.67	+ 0.08	0.50	10.0	9	21	1	8	w.	Robt. F. Gilligly.

^a, ^b, ^c, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.

* Precipitation included in that of the next measurement.

** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.

† Also on other dates.

‡ Separate dates of falls not recorded.

§ Data are from standard instruments not supplied by the U. S. Weather Bureau.

|| Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

¶ Estimated by observer.

||| Precipitation for the 24 hours ending on the morning when it is measured.

T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for April, 1910. District No. 5, Upper Mississippi Valley.*

Stations.	River basins.	Day of month.																																		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total			
North Dakota.																																				
Amenia.....	Red.....																T.	.56	.50	.40															1.46	
Bottineau.....	Mouse.....																.16	.34	T.	.25															1.34	
Cando.....	Sheyenne.....																.15	.32		.25														1.02		
Crosby.....	Mouse.....																.04	.33	.48															1.38		
Devils Lake.....	Sheyenne.....																	T.	.55	.27	.11													1.22		
Donnybrook.....	Mouse.....																.do.		.75																0.75	
Dunseith.....																			.35		.02														0.99	
Edmore.....	Sheyenne.....																.do.		.35		.10													1.06		
Grafton.....	Red.....																T.		.10	1.00	.80												1.38			
Granville.....	Mouse.....																.12		.48	.04	T.													1.90		
Hannah.....	Pembina.....																.05		.50	.26	.10	T.											1.49			
Hansboro.....	Red.....																.05		.35	.15	.08	.03											1.40			
Hillsboro.....	do.....																.05		.23	.76	.60	.20											2.09			
Lakota.....	Sheyenne.....																		.01	.66	.30	.50	.60										2.28			
Langdon.....	Pembina.....																.08	.97	.14	.11													1.60			
Larimore.....	Red.....																.02	.28	.21	.20	.07	.40										1.31				
Lisbon.....	Sheyenne.....																T.	.02	.36	.20	.20	.60	T.										1.38			
McKinney.....	Mouse.....																T.	*	.54																1.00	
Manfred.....	Sheyenne.....																.do.		.65	.10	.10	T.											1.05			
Mayville.....	Red.....																.06		.36	.35	.80												1.91			
Minot.....	Mouse.....																.03		.89	.08	1.												1.88			
Minto.....	Red.....																.do.		.15	.60	.27	.16	.03										1.33			
Oriska.....	Sheyenne.....																.do.		.19	.06	.30												0.55			
Park River.....	Red.....																T.	.10																1.00		
Pembina.....	Portal.....																																		3.41	
Power.....	Sheyenne.....																		*	1.00	*	*	.80											1.80		
Pratt.....	Mouse.....																		.52																1.66	
University.....	Red.....																.75		.28	.10	.10	.10											0.48			
Wahpeton.....	do.....																		.28	.20	.30	.10											1.63			
Walhalla.....	Pembina.....																.18		T.	.77	.01	T.											1.77			
Westhope.....	Mouse.....																		.35	T.															1.25	
Willow City.....	do.....																																			1.25
Minnesota.																																				
Albert Lea.....	Mississippi.....																T.		.15	.30	T.														0.70	
Alexandria|||	do.....																T.	.43	.03		T.														3.03	
Angus.....	Red.....																.do.		.43	.02	T.														0.98	
Bagley.....	do.....																.do.		.43	.02	T.														2.23	
Baudette.....	Rainy.....																T.		.91	.69	T.														1.78	
Beardsley.....	Minnesota.....																.do.		.43	.17	.56	.33											1.93			
Beauregard.....	Red.....																.05		.41	.97	.25	.20	.10										1.86			
Bird Island.....	Minnesota.....																.05		.23	.70	.30	.10	.05										1.00			
Caledonia|||	Mississippi.....																.03		T.	.57	T.	.33	T.											2.26		
Campbell|||	Red.....																.do.		.02	.61	.44	.30	.20	T.									2.07			
Cass Lake|||	Mississippi.....																.02		T.	.60	.45	.60	.20	T.									2.15			
Collegeville.....	do.....																.02		T.	.70	.02	.02	T.										1.8			
Crookston|||	Red.....																.05		T.	.70	.53	.20	.14	T.									2.23			
Detroit|||	do.....																.do.		T.	.50	T.														0.65	
Fairmont (near)	Minnesota.....																		T.		.15	.30	.10											0.58		
Farmington.....	do.....																		T.	.23	T.														0.55	
Fergus Falls.....	Red.....																.10		T.	.24	.10	.40	.05										2.14			
Fort Ripley|||	Mississippi.....																.25		T.	.57	.24	.28	.08										1.58			
Fosston.....	Red.....																.do.		T.	.65	T.	.26											1.36			
Glenoce.....	Minnesota.....																.do.		T.	.05	.08	.07	.04										0.43			
Grand Meadow.....	do.....																.07		T.	.20	.75	.10	.75										1.88			
Hallock.....	Red.....																.15		T.	.20	.30	.38	.09	.06								1.25				
Hinckley.....	St. Croix.....																.40		T.	.37	.03	.13	.21										0.52			
International Falls.....	Rainy.....																.do.		T.	.37	.03	.13	.21										2.38			
Kelliher.....	Red.....																.do.		T.	.08	.24	.24	.24										0.32			
Lake Crystal.....	Minnesota.....																.09		T.	.80	.05	.55	.09										2.22			
Leech Lake Dam.....	Mississippi.....																.09		T.	.80	.05	.55	.09										0.32			
Little Falls.....	Rainy.....																.15		T.	.48	.05	.14	.34	.21								2.73				
Long Prairie.....	Mississippi.....																.22		T.	.33	.01	T.	.30	.05									1.69			
Lynd (2).....	Minnesota.....																.do.		T.	.01	.01	T.	.42										0.68			
Mankato|||	do.....																.do.		T.	.18	.06	.02	.42	.12									1.92			
Mapleplain.....	Mississippi.....																.do.		T.	.46	T.	.40	T.										0.71			
Milan.....	Minnesota.....																.40		T.	.76	.10	.25	.04	.04								2.35				
Minneapolis.....	do.....																.02		T.	.10	.13	.18		.03	.06	.12						1.64				
Montevideo|||	Minnesota.....		</td																																	

TABLE 2.—*Daily precipitation for April, 1910. District No. 5—Continued.*

Stations.	River basins.	Day of month.																																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.		
<i>Minnesota—Cont'd.</i>																																			
Winona.	Mississippi.																																		1.20
Worthington|||	Des Moines.																																	0.88	
Zumbrota.	Mississippi.																																	0.40	
<i>South Dakota.</i>																																			
Milbank.	Minnesota.	11																																2.12	
<i>Wisconsin.</i>																																			
Antigo.	Wisconsin.																																		
Barron.	Chippewa.																																	0.90	
Beloit.	Rock.	*	30	49	50																													3.64	
Brodhead.	do.	22		21	45																													4.07	
Burnett.	do.	11	T.	45	86																													3.48	
Delavan.	do.	03	31	10	24																													3.24	
Dodgeville.	do.																																		
Downing.	Chippewa.																																	0.80	
Eau Claire.	do.		06	T.																														1.29	
Ellsworth.	Mississippi.																																		
Glidden.	Chippewa.																																	4.14	
Grand Rapids|||	Wisconsin.																																	0.75	
Grantsburg.	St. Croix.																																	4.67	
Hancock.	Wisconsin.	T.	97	53																														3.85	
Hatfield.	Black.	70	62	90																														1.10	
Hayward.	St. Croix.																																	4.23	
Hillsboro.	Wisconsin.	57	97																															4.22	
Koepenick.	do.	01	04	105																														4.22	
LaCrosse.	Mississippi.	08	63																															2.22	
Lake Mills.	Rock.	03	06	18	52																													3.99	
Lancaster.	Mississippi.																																	4.12	
Long Lake.	Wisconsin.	T.	22	T.	01																													2.02	
Madison.	Rock.	13	10	82	44																													4.56	
Mather|||	Wisconsin.	T.	71	85																														4.01	
Mauston.	do.	1	10	70																														3.68	
Meadow Valley.	do.	T.	140																																4.45
Medford.	Black.	*	3	15																														3.90	
Merrill.	Wisconsin.		01	10	05																													3.90	
Minocqua.	do.			30																															1.35
Mondovi.	Mississippi.		30	03																														1.10	
Mount Horeb.	Rock.	08	06	74	90																													5.89	
Muscosa|||	Wisconsin.	T.	22	164																														4.92	
Neillsville.	Black.	T.	46	43																														4.10	
New Richmond.	St. Croix.																																	1.41	
Osceola.	do.																																	0.69	
Portage.	Wisconsin.	08		67	53																													5.01	
Prairie du Chien|||	Mississippi.	06		261	18																													3.34	
Prentice.	Chippewa.	T.	54																															1.87	
Rhinelander.	Wisconsin.	T.	100	05																														2.82	
Sauk City.	do.																																	2.36	
Shullsburg.	Mississippi.	08		77	88																													5.16	
Solon Springs.	St. Croix.																																		
Spooner.	Chippewa.	T.	35																															1.10	
Stanley.	Wisconsin.	1	01	25																														1.53	
Stevens Point.	do.	17	63	39																														4.82	
Valley Junction.	do.	01	05	10	20																													5.31	
Viroqua.	Mississippi.	T.	90	T.																													2.90		
Vudesare.	Wisconsin.	12	34	10	38	02																											3.97		
Watertown|||	Rock.	43	45	03																													3.91		
Wausau.	Fox.	T.	95	42																													3.88		
Weyerhaeuser.	Chippewa.	09																																1.14	
Whitehall.	Mississippi.	08																																1.19	
<i>Iowa</i> .																																			
Albia|||	Des Moines.		26	90																														2.02	
Algona.	do.																																	0.29	
Alta|||	Raccoon.																																	1.05	
Amana.	Iowa.	01	14	57	02																												2.62		
Ames.	Skunk.	10																															0.50		
Baxter.	do.	149	14		01																												2.25		
Belle Plaine.	Iowa.	05	60																														1.69		
Belmont.	do.																																1.04		
Bloomfield.	Mississippi.		112	24																												2.69			
Bonaparte.	Des Moines.	02		361	32	46																										3.09			
Britt.	do.	05																															0.84		
Buckingham.	Iowa.	T.	34	106																															

TABLE 2.—*Daily precipitation for April, 1910. District No. 5—Continued.*

Stations.	River basins.	Day of month.																																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total				
Iowa—Cont'd.																																					
Indianola.	Des Moines.			.05	.28		T.				T.	.02	.04	T.	.05	T.	.08	.03							.01	T.	T.								0.56		
Iowa City||.	Iowa.	T.		.22	.16						T.	.03			.21		.06	.20	.02						T.	.45	.02	.07	.12					2.56			
Iowa Falls||.	do.			.11	T.					T.		.02		T.	.40	.10	T.								.32	T.	.15	T.						1.72			
Jefferson.	Raccoon.										T.			T.	.25	T.	.02									.05	.05								0.37		
Keokuk.	Mississippi.	.08		.10	.70					T.				.125		.11	.21	.04								.05	.03	.04	.10	.20				2.91			
Keosauqua||.	Des Moines.	T.		.24	.83	.01				T.				T.		.21		.10	.15	.05	T.					T.	.18	.27	.21					3.25			
Knoxville.	do.			.20	.24					T.				.54			.20	.10	T.	.10	.10					.07	.05		.09					0.85			
Le Claire||.	Mississippi.	.18	T.	.22	.50					T.				.26		.03	.05	.04								.24	.01	.10	.10					1.95			
Marshalltown||.	Iowa.			.61	.08	.11				T.				.14			.24		.11	.07						.28		.03	.10					1.89			
Mason City.	Cedar.									T.				.02		.04										T.	.02	.02	.07	.18				0.31			
Mount Pleasant.	Skunk.	.06	T.	1.42	.30	.02				T.				.27		.18	.10	.14	.02						T.	.02	.02	.07	.18				3.03				
New Hampton.	Wapsipinicon.			.51						T.				.15			.25	.20							T.	.10								1.64			
Newton.	Skunk.			.20	.16					T.				.10			.19		.02							.45								1.12			
Northwood.	Cedar.									T.				.01		.08	.03	.09	.07	T.							.50	.20							0.98		
Olin.	Wapsipinicon.									T.							T.	T.	.25							T.	.10	T.								0.35	
Osage.	Cedar.									T.				.03		.90																				2.49	
Oskaloosa.	Des Moines.									T.				.11		.16																				3.52	
Ottumwa.	do.			.11	.16	.04				T.				.09		.21	.05	.07	.04							.27	.01							3.52			
Pella.	do.			.80		.04				T.				T.		.01	.04	.10	.04	T.							.15	.01	T.	.08					1.27		
Perry.	Raccoon.			.15						T.				.14		*	.20	T.	.12	T.															0.61		
Plover.	Des Moines.									T.				.02		T.	.10																		0.22		
Pocahontas.	do.									T.								.03																		0.23	
Ridgeway.	Mississippi.	.52	.21	.05						T.				.25			.30		.71	.26	.03	T.					.56	.23	.40					3.52			
Rockwell City.	Raccoon.									T.				.02			.10	.10	.10								.20								1.02		
Sac City.	do.									T.								.11	.17	T.	.20														0.52		
St. Charles.	Des Moines.	T.	T.	.20										.16			T.	.16	.01								.01	.03							0.60		
Sigourney.	Skunk.			.10	.00	.30				T.				.40			T.	.25	.15	.12	.02					.56	.02	T.	.09					3.30			
Stockport.	do.			T.	T.	.19	.88			T.							T.	.15	.15	.20	.07	.01				T.	T.	.05	.03	.11			3.05				
Storm Lake.	Raccoon.			.86	*	.93				T.								.15	.11	*	.34														0.55		
Stuart||.	do.			.28	T.									.50			.48	.10	.05	*	*	.32											1.41				
Tipton.	Cedar.			.18	.28	.03																				.45	.12	.09						2.51			
Toledo.	Iowa.			.45	T.	.50	T.							.08			T.	.45	.03	.08	.03	T.					.40	.03		.07				2.07			
Wapello.	do.			.16	.78	.23											T.	.20	.14	.10														2.17			
Washington.	Skunk.			.86	*	.93											T.	.12	.14	.12	.06													3.11			
Waterloo||.	Cedar.			.73	.34									.05			T.	.36	.26	.05	T.							.11	.14	.07	.02				2.17		
Waukee.	Raccoon.			.91	.11									.05		.10		.02	.01	.03	.01												1.31				
Waverly.	Cedar.			.92	.12												T.	.40	.10	.13	.04													2.00			
Webster City.	Des Moines.									T.							T.	T.	.10																0.10		
West Bend.	Des Moines.	T.												.03			T.																			0.35	
Whitten.	Iowa.			1.00	.12					T.							T.			T.															1.32		
Winterset.	Des Moines.	T.		.12	.21					T.							T.			T.															0.79		
Zearing.	Iowa.			.28						T.							T.																		0.47		
<i>Missouri.</i>																																					
Darksville.	Chariton.																																				3.72
Gorin.	Mississippi.	.05		.27	.73									.02		.06		.38		.09	.15	.07											3.72				
Hannibal.	do.	.32		.05	.36	.59	T.							T.			.30	T.	.06	.17	.08	T.											2.60				
Louisiana.	do.	T.		.40		.40								.39			T.	.09	.41	.16	.05												2.82				
Mexico||.	do.			.55		.04	.64										T.	.12	.04	.03	.20	.08											3.29				
Steffenville.	do.			.50		.70	.10							T.			.23	.10	.20	.11	.20											5.04					
Sublett.	do.			.30		.22	.14										T.		.10	.25	T.												2.55				
Warrenton||.	do.																																		3.21		
<i>Indiana.</i>																																					
Collegeville.	Iroquois.	T.		.05		.04	.07										T.		.03	.10	.22	.16												2.98			
Knox.	Kankakee.	.01		.01		.05											T.		.37	.11	T.													4.73			
Laporte.	do.			.38		.01											T.		.01															3.48			
Plymouth.	do.			.02		.56	.03										T.		.36		.22	.48	.19										4.22				
<i>Illinois.</i>																																					
Aledo.	Mississippi.	.34				.73	.46										T.		.70	.29	.17	.07											3.62				
Alexander.	Illinois.	10	T.			.43	.04										T.		.73	.43	.07	.04	T.										2.69				
Antioch.	do.					.30	.18										T.																	2.04			
Astoria.	Illinois.			.21	T.	.42	.18										T.		.08															2.86			
Bement.	Mississippi.			.06		.15	.23										T.		.08															3.96			
Benton.	do.			.10			.12										T.		.25	.15	.10	.11											4.04				
Bloomington.	Illinois.			.07		.04	.42										T.		.15	.33																	

TABLE 2.—*Daily precipitation for April, 1910. District No. 5—Continued.*

Stations.	River basins.	Day of month.																																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total		
Illinois—Cont'd.																																			
Oregon.....	Mississippi.....																																	.55	3.74
Ottawa.....	Illinois.....																																	.32	3.28
Pana.....	Mississippi.....																																	.49	3.49
Peoria.....	Illinois.....																																	.51	3.56
Pontiac.....	do.....																																	.41	4.07
Riley.....	Mississippi.....																																	.02	4.07
Rockford|||	do.....																																	.30	3.32
Rushville.....	Illinois.....																																	.27	3.50
St. Charles.....	do.....																																	.10	2.82
St. Peter.....	Mississippi.....																																	.22	3.81
Springfield.....	do.....																																	.15	1.87
Streator|||	Illinois.....																																	.20	2.81
Sullivan.....	Illinois.....																																	.20	2.81
Sycamore|||	do.....																																	.06	3.18
Tilden.....	do.....																																	.25	3.78
Tiskilwa.....	Illinois.....																																	.01	3.23
Walnut.....	Mississippi.....																																	.03	2.66
Warsaw|||	do.....																																	.02	2.42
White Hall.....	Illinois.....																																	.02	2.82
Windsor.....	Mississippi.....																																	.34	2.83
Winnebago.....	do.....																																	.34	4.56
Yorkville.....	Illinois.....																																	.05	4.16
Zion.....	Mississippi.....																																	.05	2.67

TABLE 3.—Maximum and minimum temperatures at selected stations, April, 1910. District No. 5, Upper Mississippi Valley.

Date.	North Dakota.										Minnesota.																	
	Bottineau. [§]		Devils Lake.		Lisbon. [§]		Minot. [§]		Pembina. [§]		Collegeville.		Crookston. [§]		Grand Meadow.		Montevideo. [§]		Moorhead.		New Ulm. [§]		Pine River Dam.		St. Paul.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		
1.	56	22	55	27	64	30	58	26	60	29	62	39	53	30	64	34	62	28	56	31	64	30	63	32	61	47	55	32
2.	60	40	63	39	76	34	63	23	60	36	70	37	72	37	73	36	77	35	75	36	74	37	71	23	73	40	67	26
3.	63	42	66	37	80	40	63	40	62	41	69	53	73	30	74	46	80	55	79	46	77	38	78	52	74	49	73	50
4.	43	32	40	25	47	39	50	32	41	30	64	42	37	36	75	47	49	49	57	57	65	40	62	38	73	40	66	37
5.	62	25	60	24	60	20	67	27	58	23	50	37	52	27	48	36	52	31	55	27	55	35	60	33	49	38	50	32
6.	76	28	70	31	70	24	78	35	63	30	60	34	60	30	63	23	67	38	63	28	64	30	61	30	62	32	57	28
7.	54	36	58	37	67	35	59	37	55	40	69	42	60	35	68	30	75	43	65	38	75	32	69	38	64	36	50	
8.	68	34	70	36	80	26	71	35	64	33	67	40	71	30	68	40	74	38	76	39	74	39	66	40	67	44	64	35
9.	65	38	65	35	77	36	81	39	61	34	73	47	62	33	80	45	79	45	74	36	81	40	68	36	74	48	63	38
10.	62	35	74	35	85	44	68	34	59	37	80	52	81	40	79	48	83	50	85	43	84	47	67	40	80	50	79	42
11.	59	30	58	30	60	37	62	26	64	28	76	34	58	37	62	32	59	48	50	38	71	45	50	38	66	39	75	36
12.	76	31	68	33	68	28	73	32	63	30	53	31	55	35	72	38	69	40	59	33	68	40	54	30	59	38	52	30
13.	75	34	80	42	81	38	71	33	80	40	75	46	80	40	71	44	78	45	82	43	77	42	77	36	74	44	74	43
14.	45	31	61	30	59	34	42	35	61	50	69	53	60	67	43	67	50	60	48	74	45	70	50	70	51	72	51	
15.	31	20	30	20	34	28	35	24	50	20	65	33	30	29	45	25	39	38	48	16	53	51	68	33	63	32	63	43
16.	26	18	21	14	28	17	32	20	22	12	37	20	25	16	33	19	28	18	25	16	33	23	38	22	32	26	43	25
17.	39	17	29	18	29	23	43	22	28	18	32	26	31	17	40	28	35	20	31	20	39	23	35	30	36	25	37	31
18.	53	22	43	21	40	24	57	33	32	20	40	26	35	18	53	30	36	28	35	26	43	35	40	29	52	30	38	29
19.	80	27	70	39	60	19	86	27	43	28	56	30	42	25	68	27	52	25	44	22	57	30	58	28	59	35	55	27
20.	83	33	68	33	70	30	84	36	66	32	65	38	62	34	69	40	74	45	69	35	74	32	68	26	69	34	68	30
21.	55	38	56	29	58	40	60	40	50	40	67	48	53	42	70	40	64	46	56	36	73	38	63	40	72	47	63	30
22.	43	20	40	20	42	28	52	21	42	18	49	29	33	20	61	30	38	31	36	22	43	39	41	25	49	25	44	20
23.	52	15	45	15	49	20	70	18	40	19	40	23	41	20	31	17	44	22	41	20	45	26	42	18	33	20	43	18
24.	70	30	63	23	60	24	74	23	62	18	54	30	53	25	44	27	58	21	57	26	50	26	59	27	47	29	57	24
25.	78	32	76	38	70	26	80	36	64	28	61	31	60	34	69	32	66	29	68	30	63	30	67	33	60	31	69	29
26.	86	42	83	44	82	35	90	52	72	37	75	39	77	38	72	41	80	81	86	74	83	76	29	73	38	74	34	
27.	35	43	84	34	90	42	91	35	59	39	86	55	77	40	83	45	90	92	40	87	45	75	38	86	46	76	43	
28.	73	39	68	37	74	42	76	44	79	38	83	33	65	38	89	53	92	53	70	39	93	50	66	33	83	42	63	35
29.	52	45	53	37	60	46	84	45	50	41	72	43	57	43	89	61	78	50	60	39	85	55	63	29	81	49	60	40
30.	60	30	63	29	70	30	61	33	68	31	63	39	62	34	67	41	65	36	68	31	66	43	63	33	61	44	61	37
31.																												
Mns	61.0	30.6	59.3	30.1	63.0	31.3	66.0	32.3	55.9	30.6	62.7	37.6	56.1	32.1	64.5	36.8	63.7	37.5	60.8	32.2	66.0	37.0	61.3	33.8	63.6	38.4	60.8	33.9

Date.	Wisconsin.										Iowa.																	
	Delavan.		Eau Claire.		La Crosse.		Madison.		Mauston.		Spooner.		Wausau.		Algoma.		Cedar Rapids. [§]		Charles City.		Davenport.		Des Moines.		Dubuque.		Keokuk.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		
1.	72	38	64	43	65	44	67	42	66	42	59	37	62	42	63	35	73	37	66	35	70	44	73	40	71	43	71	44
2.	74	38	74	32	76	37	71	41	75	29	70	32	64	38	75	40	75	41	73	51	74	42	73	43	73	49		
3.	70	48	74	43	75	55	68	49	71	50	70	49	68	45	73	47	77	46	74	49	74	55	74	54	73	54		
4.	76	55	77	52	80	49	76	55	80	50	76	48	71	48	69	45	80	57	77	41	77	59	78	61	77	60		
5.	67	51	61	39	49	42	62	37	72	50	49	33	70	38	53	34	46	44	45	40	59	37	61	38	60	39		
6.	55	32	62	30	59	34	52	33	56	37	57	28	68	32	61	37	58	36	61	33	58	35	62	37	57	34	59	38
7.	61	27	67	30	67	31	60	34	64	29	66	34	60	28	74	37	68	35	67	33	68	39	69	38	64	35	67	38
8.	74	38	68	44	68	48	71	40	70	47	65	35	67	38	68	40	71	35	68	40	73	51	72	48	70	51	77	55
9.	73	36	72	37	74	41	72	48	75	39	70	38	70	37	79	42	80	44	78	38	75	45	79	43	76	46	76	46
10.	75	39	82	41	81	43	75	44	80</																			

MONTHLY WEATHER REVIEW.

APRIL, 1910

TABLE 3.—*Maximum and minimum temperatures at selected stations, April, 1910. District No. 5—Continued.*

Date.	Hannibal, Mo.		La Porte, Ind.		Cairo.		Greenville.		La Salle.		Monmouth.		Mt. Vernon, Ill.		Peoria.		Springfield.		Winnebago.		
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.	71	36	69	36	71	54	73	45	71	41	73	40	75	41	70	37	70	44	72	36	
2.	73	42	73	40	71	53	70	46	74	45	74	43	75	41	73	41	74	45	74	46	
3.	73	57	72	48	71	58	72	54	74	54	76	53	78	41	75	54	73	55	71	50	
4.	77	57	74	55	77	61	73	60	78	58	79	60	78	52	77	60	76	58	79	56	
5.	67	35	70	52	65	46	67	46	66	43	69	45	67	60	62	43	66	39	68	48	
6.	59	40	54	33	60	46	54	40	54	38	61	38	52	41	56	37	56	40	56	33	
7.	69	34	48	31	68	43	69	37	63	33	69	34	71	35	65	33	67	42	65	30	
8.	77	51	73	34	76	49	77	45	77	44	78	47	78	41	76	48	77	48	76	40	
9.	74	44	64	40	79	55	79	51	75	46	79	42	81	50	75	43	75	52	75	41	
10.	80	46	78	44	78	56	82	53	80	47	82	44	81	48	80	44	78	52	81	44	
11.	71	54	82	44	66	60	70	55	76	44	76	52	78	53	73	46	75	53	81	43	
12.	63	46	58	34	65	57	65	51	57	35	63	40	65	54	61	41	64	44	56	33	
13.	71	43	67	34	73	51	75	41	70	32	73	34	72	43	70	35	71	38	70	29	
14.	72	54	79	42	81	57	79	53	78	43	77	46	79	46	78	49	78	49	77	35	
15.	71	48	.....	.....	80	60	78	57	75	52	73	53	78	57	75	50	70	53	75	55
16.	48	33	64	44	64	34	39	52	35	64	33	60	54	50	35	53	35	60	33
17.	37	29	59	43	42	35	40	33	35	28	35	39	32	40	32	37	30	37	30
18.	40	30	39	31	47	38	40	33	41	30	43	28	44	35	42	29	39	31	46	28	
19.	44	40	39	34	55	38	55	34	49	38	43	36	57	34	48	35	50	34	46	37	
20.	66	32	48	34	60	41	64	37	62	34	67	33	65	38	63	33	64	36	61	31	
21.	72	42	64	33	74	45	74	40	68	36	71	33	73	36	69	34	69	40	68	33	
22.	65	36	65	35	70	48	69	45	62	35	62	45	73	40	59	35	69	39	63	41	
23.	36	27	37	27	50	36	46	29	35	22	48	25	45	32	35	23	39	25	45	21	
24.	39	24	38	25	40	28	42	25	36	21	38	20	41	27	39	22	40	23	36	15	
25.	43	33	41	31	51	34	46	31	42	32	42	30	55	28	42	33	42	34	39	30	
26.	59	38	48	31	46	38	47	36	50	37	60	39	50	33	50	38	50	38	49	33	
27.	74	43	55	35	63	46	63	45	62	46	74	44	61	37	66	47	63	48	67	45	
28.	83	54	73	39	74	46	77	44	81	50	84	50	79	46	80	47	80	48	81	49	
29.	92	63	72	44	84	58	86	61	88	62	91	63	86	41	89	59	89	61	87	60	
30.	74	56	71	42	81	64	85	61	72	44	81	51	82	59	72	47	77	52	73	45	
31.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Means..	64.3	42.3	61.1	37.3	60.6	48.4	66.1	44.3	63.5	40.2	66.8	41.1	67.8	42.6	63.6	40.3	64.4	-42.9	64.5	38.3	